APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/461,072	12/14/1999	SANDRO GREGORAT	SAMS01-00077	3301

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EXAMINER
NGUYEN, CAM LINH T

ART UNIT	PAPER NUMBER
2171	

2171

DATE MAILED: 05/09/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

		Application No.		Applicant(s)	
Office Action Summary		09/461,072		GREGORAT, SANDRO	
		Examiner		Art Unit	
		Cam-Linh T. Nguyen		2171	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _15 April 2002_ .

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _2 –8, 10 – 16, 18 – 24_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _2 –8, 10 – 16, 18 – 24_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 2 –8, 10 – 16, 18 – 24 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bauer et al (U.S. 5,926,816).

◆ As per claim 2, 10, and 18,

Bauer discloses one priority art approach to synchronization has been to transmit

a copy of the replica from the server to each client (See column 1 line 35-40).

This referred as "copy controller" because it copy data from server to client side.

Bauer teaches a system that comprising a server node and a plurality of client

node and the database maintains data through arbitrary modification operations

(See column 5 line 65-67, column 6 line 1-24). Bauer also teaches that the term

synchronize is defined to be the act whereby data in two database are restored

to consistency (See column 1 line 50-57, column 2 line 64-67). Furthermore, the

database synchronizer determines which modification or changed occurred at the

client. This modification is in client side to detect modifications by comparing

client data with before-image of the client data (see column 2 line 4-20). Both

client and server side have their own synchronizer (see column 8 line 3-45). This

is referred same as "update controller" that applicant claim (See column 2 line 46-57).

Bauer does not clearly disclose the limitation of server and client both operate substantially concurrently. However, referring to Fig. 6A and 6B, column 4 line 40-55, column 11 line 23 – column 13 line 60, wherein Bauer teaches that proper synchronization should be frequently verified, and the communication between client and server, it is clear that the claimed provision is inherent. The process that occurs between two checkpoints can be referred as "operate substantial concurrently". Nonetheless, to expedite prosecution, even if the limitation of the above were not inherent, it would have been obvious to one with ordinary skill in the art at the time the invention was made to include such a step in order to generate a system that can operate concurrently.

♦ As per claim 3, 11 and 19, Bauer teaches that the databases are relational databases, which organize data in tables of row and columns of data fields (See column 2 line 25-40, column 8 line 7-10). In addition, the server maintains an update log of all operations on the server's replicated data since the time of last refresh for each client. For each row, there will be a logged entries (see column 2 line 60-67).

♦ As per claim 4, 12 and 20, Bauer teaches that catalogs on the client and server manifest table correspondences that list in a common, indexed order all the columns of the replicated tables on that computer (see column 3 line 12-25).

♦ As per claim 5, 13 and 21, Bauer teaches that the server compare the server effective operation with the row as stored in the server database and with timestamps stored in

the update log in the purpose of minimize the amount of information communicated to the server by the client (see column 4 line 15-39). Since a replicated column on the server and the replica column on the client have the same index value into the respective table correspondences, the indices are passed in the modification message to identify columns having modified data (See column 3 line 15-25). In other word, in order to detect changes of data record, the best thing is monitoring the index value in the table.

◆ As per claim 6 and 14, Bauer teaches that the modifications to the database are determined by the difference comparison between the current value in the active table and the before values in the before-image table. The active table is modified by client and contains the current values of the data fields (See column 3 line 32-50).

◆ As per claim 7-8 and 15-16, Bauer teaches in the invention that the computing system which have client side and server side application that share the same data structures, but which do not maintain a continuous connection to a single share data source. The updates performed by either client or server is propagated to the other side when a connection is established (see column 1 line 50-65). It's clearly to understand that the synchronizer is capable of determining that the client is online and is capable of activating the synchronizing operation based on the timestamp on the table in the logged entries.

◆ As per claim 22,

Bauer discloses a method of using the before image change detection technique in the invention to detect any operation to the data (See column 9 line 45 – 65).

♦ As per claim 23 – 24,

Bauer teaches "A database synchronizer in accordance with the invention

manages replicated tabular data among a plurality of heterogeneous computers that are

usually disconnected from each other", and connections must be made and individual

clients synchronized with the server. In this way, modifications made at one client are

propagated to the server and eventually to each client as it connects (See the abstract).

It is clear that the claimed provision is inherent.

Response to Arguments

3.   Applicant's arguments filed 04/15/2002 have been fully considered but they are

not persuasive.

Examiner respectfully traverses applicant's primary argument(s). Applicant

argues that the reference Bauer et al (U.S. 5,926,816) does not include the

limitation of "operate substantially concurrently". , Referring to Fig. 6A and 6B,

column 4 line 40-55, column 11 line 23 – column 13 line 60, wherein Bauer

teaches that proper synchronization should be frequently verified, and the

communication between client and server, it is clear that the claimed provision is

inherent. The process that occurs between two checkpoints can be referred as

"operate substantial concurrently". Nonetheless, such a step would have been

obvious as discussed above.

4.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

5.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cam-Linh T. Nguyen whose telephone number is 703-

305- 1951. The examiner can normally be reached on Monday - Friday from 8:00 am to

4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Safet Metjahic, can be reached on (703) 308- 1436. The fax phone number

for the organization where this application or proceeding is assigned is 703- 746- 7239.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703- 305-

3900.

SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Cam-Linh Nguyen   LN
Art Unit 2171